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WHITNEY ([illegible] '68)

Circuits have been developed for converting the height of the video signal into an appropriate pulse length. This pulse length determines the time the discharge is switched on. The display has 40 lines of 100 elements each, therefore 100 of such circuits are needed and the video signal has to be sampled into 100 parts. The horizontal and vertical scanning circuitry is made up of I.C.'s. The driving circuitry, which still uses discrete components, derives its input signals from a TV camera which operates at normal TV frequency.

The 4000 gasdischarge cells of the panel are formed by an insulating plate between two wire grids, perpendicular to each other, with holes at the intersections of these two wire grids. In these holes the glowdischarges can be ignited. The panel is filled with neon gas. Life expectancy, with the geometries here used, is several thousand of hours.

The system produces images in real time with a mean brightness of 170 to 200 nit (50-60 ft. L.). Moving of the images does not give any problem. The brightness modulation of an individual picture-element is better than 10 to 1, but due to inequalities of the gas cells this brightness modulation in the image as a whole is somewhat poorer.

SOME NOTES ON STEREOSCOPIC DISPLAY, AND AN ISOCHROMIC ANAGLYPH C.R.T.

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ABSTRACT

In stereoscopy we must distinguish wavefront reconstruction, giving a full stereoscopic reproduction, from two-channel stereoscopy, and which gives a much poorer approximation of reality. Only the latter form is suited for electronically driven displays. The many factors contributing to the impression of depth are summarized. Stereoscopic displays are shown to have only a limited field of application.

A cathode ray tube is described, on which a pair of stereoscopic images can be displayed in anaglyph form. The spectral distributions of the phosphors are so chosen that, when observed through the corresponding filters, the two images have the same color, and each eye only sees light from one of the images. This eliminates the eye fatigue inherent in the usual red-green anaglyphs.

SPEAKERS

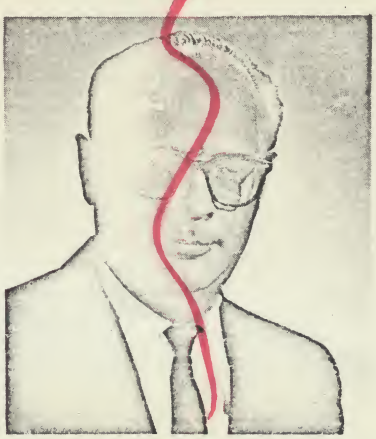
Keynote Speaker Harry I. Davis is Deputy Assistant Secretary Air Force (R&D) (Special Programs). From 1945-1951 he served as Chief, Navigation Laboratory at Watson Laboratory, Red Bank, N.J., and in 1955 was Visiting Professor at Columbia University, N.Y., where he taught a graduate course in Electrical Engineering. From 1952-59 he was Technical Director, Rome Air Development Center. He has held his present position since 1965. His Awards and Fellowships include Sigma Xi; Collier Award; Fellow, IEEE; Commendation for Meritorius Civilian Service by Commander, Air Research and Development Command; Exceptional Civilian Service Award by the Secretary of the Air Force, and the DOD Distinguished Civilian Service Award.

John Whitney, designer of motion graphics, has recently embarked upon an extensive study of creative problems re-

lated to the use of the 360 IBM computer in motion design, under a 20-month grant by IBM. In 1949, Mr. Whitney's abstract film-making won first prize in the Belgium Film Festival. Early in the 1950's he experimented with the production of 16mm films for television, and in 1952 wrote, produced and directed engineering films on guided missile projects for Douglas Aircraft. Mr. Whitney was named Fellow of the Graham Foundation for Advanced Study in the Fine Arts in 1962, two years after he founded Motion Graphics, Inc.

Luncheon Speaker Dr. Eric Von Hogerstrom is a West German scientific consultant who has worked with DOD, Siemens AG and AEG Telefunken. He provides a provocative and controversial discussion of scientific and engineering trends in information display.

H. R. Luxenberg has been active in the information display field since 1958, when, as Manager of the Systems Develop-



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